

C - Remarks**Claim Rejections – 35 USC §112**

The Examiner rejects claims 58 to 70 under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants believe that the new set of claims overcomes this rejection.

Firstly, regarding the objection related to the first, second and third pair of measurements, amended claim 58 now clearly recites the measurement of a first pair, a second pair and a third pair of local speed and local proportions.

Secondly, regarding the objection related to "measurements in locations or regions" and "measurements in the vicinity of the main body portion", Applicants are of the opinion that the claims are clear in view of the specification. The Webster dictionary provides the following definition of the terminology local and vicinity:

local: characterized by, relating to, or occupying a particular place: characteristic of or confined to a particular place,

vicinity: surrounding area, nearness, proximity.

The use of the terminology "vicinity of the main body portion", "location" and "region" aims at distinguishing measurements made by the sensor mounted in the body from measurements made by the sensors mounted on the arm (see page 8 lines 13-19). In all case, these measurements are local, i.e. in a limited volume surrounding the sensor position.

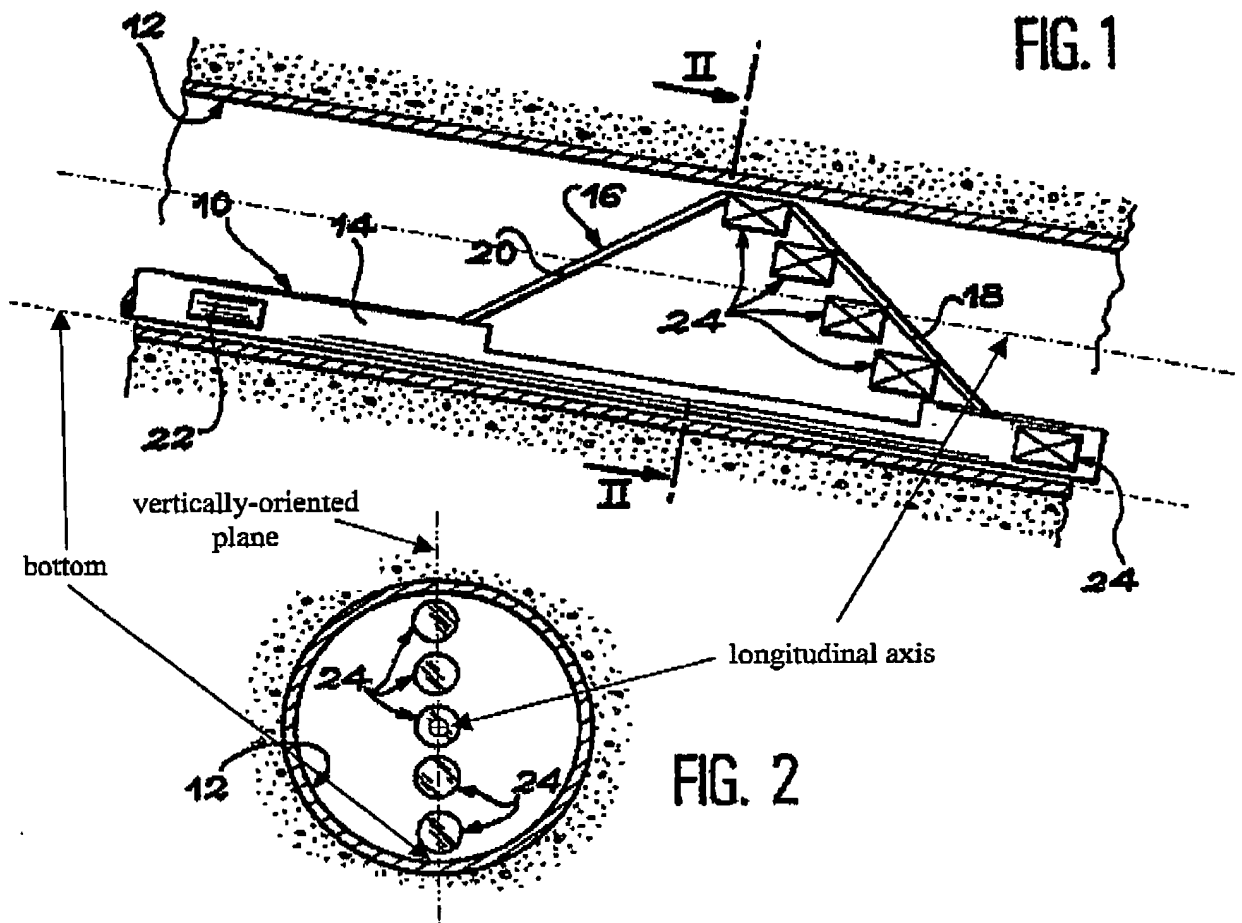
Thirdly, regarding the objection related to the various planes, axis, the position relatively to each other and the bottom, the claims have been amended to clarify these terminologies. From the description it appears that:

- the well has a longitudinal axis (see p.7 l.31, p.8 l.7-8, l.18-19 and l.28, p.10 l.25-26, p.11 l.1-2 and l.13-14),

- the bottom portion of the well is defined by the bottom generator line of the well (see p.7 l.25-26),

- the vertical plane contains the longitudinal axis (see p.7 l.30-32, p.8 l.18-19 and l.27-28, p.10 l.36-p.11 l.2). It is to be emphasized that the vertical plane is to be understood as a "vertically-oriented plane" as indicated page 11 lines 13-14 or similarly a "plane oriented in a

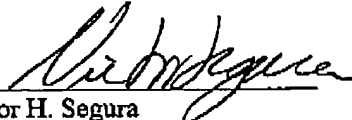
direction that is substantially vertical" as indicated page 12 lines 24-30. Thus, with the example of Figure 1, the body 14 which has an axis parallel to the longitudinal axis of the inclined or horizontal well lies on the bottom of the well (effect of gravity), the arms 16, 18 of the mechanism 16 are deployed in a vertically-oriented plane (the plan of the Figure itself) so that various sensors can be deployed in the various layers of a stratified multiphase fluid mixture flowing into the well. The drawings hereinafter clarify the position of the axis, the plane and the bottom.



Consequently, Applicants are of the opinion that there isn't any contradiction or inconstancy in the fact that the well can be horizontal or inclined and that the sensor are deployed in a vertically-oriented plane that contains the longitudinal axis of the well.

Favorable reconsideration on the basis of these amendments and remarks is requested.

Respectfully submitted,

By: 
Victor H. Segura
Registration N° 44,329

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Schlumberger Technology Corporation
200 Gillingham Lane
Sugar Land, Texas 77478
(281) 285-4562